

## Claims

- [1] A drying apparatus for drying laundry inside a drum thereof, comprising:  
a control panel for selecting a drying cycle setting;  
a storage for storing a moisture output quantity according to the selected drying cycle setting;  
a moisture sensor for sensing a moisture level in the laundry inside the drum; and  
a controller for calculating a termination point of drying operation based on the moisture level sensed by the moisture sensor and the moisture output quantity stored in the storage during an initial drying operation according to the drying cycle, and implementing drying until the calculated termination point of drying operation.
- [2] The drying apparatus according to claim 1, wherein the controller calculates the termination point of drying operation by comparing a voltage according to the moisture output quantity with a voltage corresponding to the moisture level sensed by the moisture sensor.
- [3] The drying apparatus according to claim 1, wherein the moisture sensor is a humidity sensor.
- [4] The drying apparatus according to claim 1, further comprising a condenser for condensing moisture from laundry, the moisture sensor being disposed in the condenser.
- [5] The drying apparatus according to claim 1, further comprising an exhaust duct for communicating the drum with an outside of the drying apparatus, the moisture sensor being disposed in the exhaust duct.
- [6] The drying apparatus according to claim 1, further comprising a display for displaying a projected drying time based on the termination point for drying operation calculated by the controller.
- [7] A controlling method of a drying apparatus having a drum, a control panel for inputting a drying cycle, a storage for storing a moisture output quantity according to the drying cycle, a moisture sensor, and a controller, the controlling method comprising:  
selecting a drying cycle through the control panel;  
performing an initial drying according to the drying cycle;  
sensing a moisture level of laundry inside the drum through the moisture sensor during an initial drying operation;

calculating, at the controller, a termination point of drying operation based on the sensed moisture level of the laundry and a moisture output quantity stored in the storage corresponding to the selected drying cycle; and  
implementing drying until the termination point of the drying operation calculated by the controller.

- [8] The controlling method according to claim 7, wherein the calculating of the termination point of the drying operation includes comparing, at the controller, a voltage corresponding to the moisture output quantity stored in the storage with a voltage corresponding to the moisture level sensed by the moisture sensor.
- [9] The controlling method according to claim 7, further comprising calculating a projected drying time based on the termination point of the drying operation calculated by the controller.
- [10] The controlling method according to claim 9, wherein the drying until the termination point of drying operation is implemented by the controller according to the projected drying time.
- [11] The controlling method according to claim 9, wherein the projected drying time is calculated by a sum of a multiplied value of a first constant K1, a DT (default time), and a preset voltage  $\Delta V_m$  and a multiplied value of a second constant K2, a preset voltage  $\Delta V_m$ , and a voltage  $\Delta V_x$  set according to the drying cycle.
- [12] A controlling method of a drying apparatus having a drum, a control panel for inputting a drying cycle, a storage for storing a moisture output quantity according to the drying cycle, a moisture sensor, and a controller, the controlling method comprising:
  - selecting a drying cycle through the control panel;
  - performing an initial drying according to the drying cycle;
  - sensing a moisture level of laundry inside the drum through the moisture sensor during an initial drying operation;
  - calculating an elapsed time that the moisture level of sensed laundry takes to reach a set value according to the moisture output quantity stored in the storage from the drying cycle;
  - calculating a projected drying time according to the calculated elapsed time and the selected drying cycle; and
  - implementing a drying operation according to the calculated projected drying time by the controller.
- [13] The controlling method according to claim 12, further comprising displaying the

projected drying time.

- [14] The controlling method according to claim 12, wherein the projected drying time is calculated by a sum of a multiplied value of a first constant K1, a DT (default time), and a preset voltage  $\Delta V_m$  and a multiplied value of a second constant K2, a preset voltage  $\Delta V_m$ , and a voltage  $\Delta V_x$  set according to the drying cycle.
- [15] The controlling method according to claim 12, wherein the elapsed time is a time that the stored output quantity takes to reach a minimum sensed value during a drying of a small load.
- [16] The controlling method according to claim 12, wherein the calculating of the elapsed time includes comparing, at the controller, a voltage corresponding to a moisture output quantity stored in the storage with a voltage corresponding to a moisture level sensed by the moisture sensor.